

Application No. 10/031,940
Attorney Docket N . PG3736USW

REMARKS

Currently Claims 1-25 are pending. Claims 1-4, 6-11, 13-15, 17, 18, and 21 have been amended as described below in Section I. Claims 5, 19, and 20 have been cancelled without prejudice. Claims 26-48 and 50-62 have been added as described below in Section VI. Claim 49 has been re-presented (formerly dependent claim 13).

The Action states that Figure 1 should be designated by a legend such as --Prior Art--. Applicant submits a corrected Figure 1 herewith.

I. Claim Amendments

Claim 1 has been amended as described below in Section III.

Claim 2 has been amended to correct a typographical error, namely the omission of the term "passage" in line 4, and has been further amended to recite "a wiper portion" to reflect amendments made to claim 1 described below.

Claim 3 has been amended to recite "a wiper portion" and to delete "second" references.

Claim 4 has been amended to depend from claim 1 and to delete "second" references to reflect this change in dependency. Claim 4 has also been amended to recite that "the first wiper portion is in curved contact with the valve stem." Applicant respectfully submits that this amendment is not being made for patentability purposes and merely makes explicit what was implicit before.

Claims 6-9, 11, 13, 15, and 17 have each been amended to depend from claim 1 and to delete "second" references to reflect this change of dependency.

Claim 10 has been amended to delete "second" references to reflect the change in dependency of claim 9, from which claim 10 depends.

Claim 14 has been amended to delete "second" references to reflect the change in dependency of claim 13, from which claim 14 depends.

Claim 18 has been amended to delete "second" references to reflect the change in dependency of claim 17, from which claim 18 depends.

Claim 21 is no longer an independent claim and has, instead, been amended to depend from claim 1.

Application No. 10/031,940
Attorney Docket No. PG3736USW

II. Claim 3 is D finite

Claims 3 and 20 are rejected under 35 U.S.C. § 112, second paragraph. Regarding claim 3, the reference to "second wiper" has been deleted. Also, claim 20 has been canceled without prejudice. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

III. Claims 1, 3, and 21-25 Are Patentable Over Riebe

Claims 1, 3, and 21-25 are rejected under 35 U.S.C. § 102(b) as being anticipated by WO 99/06303 (Riebe). Applicant respectfully traverses this rejection.

Claim 1 has been amended to recite a valve that comprises:

a valve body defining a metering chamber in communication with a dispensing passage; and,

a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to

a first sealing ring including a first sealing portion and a first wiper portion, wherein a stem-receiving part of the first sealing portion contacts a first surface of the valve stem, wherein a stem-receiving part of the first wiper portion contacts a second surface of the valve stem, and wherein there is an enclosed space between the first sealing portion, the first wiper portion, and a valve stem surface between the first surface of the valve stem and the second surface of the valve stem.

Support for this amendment can be found at page 3, lines 14-15, and in Figures 2a and 2b, among other places.

Applicant respectfully submits that Riebe neither discloses nor suggests a valve having an enclosed space as recited in amended claim 1. For at least the foregoing reasons, Applicant submits that claim 1 is patentable over Riebe and request that this rejection be withdrawn. As claims 3 and 21-25 depend from patentable claim 1, Applicant respectfully submits that these claims are patentable over Riebe for at least the same reasons as described above with respect to claim 1. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

IV. Claims 1, 3, and 21 Are Patentable Over Heinzel

Claims 1, 3, and 21 are rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 5,027,986 (Heinzel). Applicant respectfully traverses this rejection.

Application No. 10/031,940
Attorney Docket N . PG3736USW

As described above in Section II, Claim 1 has been amended to recite an enclosed space. Heinzel neither discloses nor suggests an enclosed space as recited in amended claim 1. For at least the foregoing reasons, Applicant respectfully submits that claim 1 is patentable over Heinzel and requests that this rejection be withdrawn. As claims 3 and 21 depend from patentable claim 1, Applicant respectfully submits that these claims are patentable over Heinzel for at least the same reasons as described above with respect to claim 1. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

V. Claims 22-25 Are Patentable Over Heinzel in view of Riebe

Claims 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Heinzel in view of Riebe. As claims 22-25 depend from patentable claim 1, Applicant respectfully submits that these claims are patentable over Heinzel in view of Riebe for at least the same reasons as described above with respect to claim 1. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

VI. New Claims

Applicant has added new claims 26-48 and 50-62. Applicant respectfully submits that these claims are fully supported by the specification. New claims 27, 38, and 50 are independent claims and will be described further below.

Claim 27 recites a valve that comprises:

a valve body defining a metering chamber in communication with a dispensing passage; and,

a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to

a sealing ring including a sealing portion and a wiper portion, wherein the wiper portion is in curved contact with the valve stem.

Support for claim 27 can be found at page 3, lines 11-12, and page 9, line 1, among other places. Applicant respectfully submits that Claim 27 is patentable over Heinzel and Riebe. For example, these references, either taken alone or in combination, do not disclose or suggest "a sealing ring including a sealing portion and a wiper portion,

Application No. 10/031,940
Attorney Docket No. PG3736USW

wherein the wiper portion is in curved contact with the valve stem" as recited in claim 27.

Claim 38 recites a valve that comprises:

a valve body defining a metering chamber in communication with a dispensing passage; and,
a valve stem having the dispensing passage and a transfer passage, the valve stem contacting and slidably movable with respect to
a sealing ring including a sealing portion, a wiper portion, and a layer of supporting rigid material positioned between the sealing portion and the wiper portion.

Support for claim 38 can be found at page 3, lines 25-26, and on page 9 in the description of Figure 2b, among other places. Applicant respectfully submits that claim 38 is patentable over Heinzel and Riebe. For example, these references, either taken alone or in combination, do not disclose or suggest "a sealing ring including a sealing portion, a wiper portion, and a layer of supporting rigid material positioned between the sealing portion and the wiper portion" as recited in claim 38.

Claim 50 recites a valve that comprises:

a valve body; and
a valve stem having a dispensing passage, and, contacting said valve stem, a sealing ring including a sealing portion; the valve stem being slidably movable relative to the sealing ring from a valve-closed position to a valve-open position in which the interior of the valve body is in communication with the dispensing passage, wherein the sealing ring further includes a wiper portion configured to wipe the valve stem on sliding movement of the valve stem relative to the sealing ring, wherein the sealing portion presents a sealing surface in sealing engagement with the valve stem, wherein the wiper portion presents a wiper surface in wiping engagement with the valve stem, and wherein the sealing ring further has a void portion which is juxtaposed to the valve stem and located between the sealing and wiper surfaces for spatial separation of the sealing and wiper surfaces.

Support for this claim can be found in original claim 1, at page 3, lines 14-15, and pages 8-9, in the description of Figure 2a, among other places. Applicant respectfully submits that the valve recited in new claim 50 is patentable over Riebe and Heinzel. For example, these references, either taken alone or in combination, do not disclose or suggest a valve comprising a sealing ring including a sealing portion, "wherein the sealing portion presents a sealing surface in sealing engagement with the valve stem,

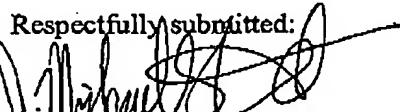
Application No. 10/031,940
Attorney Docket No. PG3736USW

wherein the wiper portion presents a wiper surface in wiping engagement with the valve stem, and wherein the sealing ring further has a void portion which is juxtaposed to the valve stem and located between the sealing and wiper surfaces for spatial separation of the sealing and wiper surfaces" as recited in claim 50.

Applicant respectfully requests allowance of newly added claims 26-48 and 50-62.

VII. Conclusion

The concerns of the Examiner addressed in full, Applicant respectfully requests withdrawal of the outstanding rejections and the issuance of a Notice of Allowance forthwith. If there are any outstanding issues following the entry of this Notice of Allowance, the Examiner is encouraged to contact the undersigned, who may be reached at (919) 483-9024.

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